

ABSTRACT OF THE DISCLOSURE

An optical encoder whose environmental resistance is improved by increasing the variety of options of materials for a resin-made code plate thereof. Used as material for at least a code pattern of the code plate of the optical encoder is one which meets the condition that the material has spectral transmittance of 70% or more with respect to detection light and that of 50% or less with respect to partial light (for example blue light) of visible wavelengths in translucent sections. If infrared light having wavelengths between 800 nm and 1000 nm is used as detection light, it is preferable to apply polyetherimide, polyethersulfone or polyphenylsulfone as a colored resin material. These materials are excellent in heat resistance, oil resistance, etc., compared to transparent and colorless materials (PMMA, PC, glass, etc.) which have been conventionally used, and hardly cause melting, deformation, white turbidity, etc., in a harsh environment.